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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,395	01/11/2002	Ronald Steiger	713-612	5486

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EXAMINER

HWU, DAVID D

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 03/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/042,395

Applicant(s)

STEIGER, RONALD

Examiner

Davis Hwu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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***Response to Amendment***

1. The amendment of February 20, 2004 is acknowledged and entered as paper number 9.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

3. Claims 1, 3, 4, 6, 11-15, 17-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over McComas et al.

McComas et al. discloses a spray coating method comprising the step of spraying a coating material from a spray system through a coating material atomizer in the form of an irrotational nozzle onto an object to be coated and cooling at least one component of the spray system where the coating material may deposit on the component and cure on it by a fluid, cooled coolant that is fed to the component during spraying which will reduce or prevent the adhesion rate and the layering of the coating material on a surface of the component. McComas et al. do not disclose spraying liquid, however, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The use of a compressed gas in particular air to provide cooling is well known in the art. The nozzle shapes recited in claim 23 is an obvious matter of design choice since it involves a change in the shape of a component which is generally recognized as being within the level of ordinary skill in the art.

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4. Claims 1-4, 6-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinstein in view of McComas et al.

The patent to Weinstein discloses a method for coating liquids comprising a liquid atomizer in the form of a rotating nozzle element to spray the coating liquid onto an object to be coated, characterized by a cooling unit cooling a component of the spray system by means of a fluid, cooled coolant during spray operations. Weinstein does not disclose that the cooling aspect reduces or prevents the coating liquid's adhesion and/or the drying rate and layering on a surface of the component. McComas et al. teaches a spray system in which a spray nozzle is cooled which will reduce the thickness of the adhering layer of spray liquid. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Weinstein by providing a cooling unit as recited to prevent or reduce the coating liquid's adhesion and/or drying rate on its layering surface. The use of a compressed gas in particular air to provide cooling is well known in the art. A cooling element of the cooling unit to cool the coolant as recited in claim 10 is well known in the art since the cooling unit is typically a compressor.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over McComas et al. in view of Wildfeuer.

Wildfeuer teaches a cooling unit including a refrigerant holding reservoir, a compressor, and a blower 5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a cooling unit comprising a blower,

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compressor, and a reservoir to provide compressed refrigerant to the inlet 16 cooling unit of McComas et al. as taught by Wildfeuer.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis Hwu whose telephone number is 703-305-1663. The examiner can normally be reached on M-F 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar can be reached on (703)308-2087. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.



Davis Hwu